

In the Supreme Court of the United States,

OCTOBER TERM, 1897.

WILLIAM WHEELER HUBBELL,	}	No. 198.
appellant,		
v.		
THE UNITED STATES.		

APPEAL FROM THE COURT OF CLAIMS.

APPELLEE'S BRIEF.

STATEMENT OF THE CASE.

On December 28, 1878, the appellant filed in the United States Patent Office an application for a patent for an improvement in metallic cartridges, the claims being as follows:

1st. The circular plate E, constructed with central solid resisting piece *i*, and two or more side perforations *k*, *k*, substantially as described, applied within a metal case, with cylinder and rear end solid and tight, thereby requiring the insertion of

the plate and charge and priming from the front, igniting the charge and remaining fire-tight in firing as described.

2nd. The circular plate E, constructed as described in combination with the circular disc D, and metal solid fire-tight case A, substantially as shown and described.

3rd. A circular metallic tight-fitting plate perforated into a central fulminate chamber, leaving a central solid or unperforated bar over the fulminate chamber, within a solid fire-tight metal case, substantially as set forth. (Rec., 16, 38-39; see figure, Rec., 28.)

The examiners held that all of these claims had been anticipated by prior patents and rejected the application. Thereupon the claimant amended his specification by a more specific description of the precise features of what he alleged to be his invention, and substituted the following as his claim:

In the bottom of a solid metallic flange cartridge case or shell the combination of a circular base enclosing a central chamber of fulminate and an anvil over the fulminate provided with two or more openings whose inner edges nearly coincide with the edges of the central chamber of fulminate in the base of the cartridge, substantially as described. (Rec., 39, 40.)

Upon that claim letters patent No. 212313 were granted to him February 18, 1879. (Rec., 16.)

On March 22, 1879, appellant notified the Secretary of War that his patent had been granted, and asked an allowance of royalty on manufactures of the cartridges protected thereby. (Rec., 19.)

From the year 1872 the United States has made and used cartridge shells of the following type, viz, a hollow metallic shell, with solid flanged base, and a pocket in the exterior of the centre of the base, this pocket being pierced at the centre of the top (supposing the cartridge to stand upon its base) by a single aperture to carry the fulminate flame to the powder chamber. (See figure, Rec., 35.) This shell, when in use, contains within the powder chamber only the powder and the bullet; a small anvil plate or disk, and a small metal cup containing fulminate being inserted into the pocket, so as to ignite the charge when the cup is struck by the firing pin. (Rec., 18, 19.) From 1872 until 1879, when a certain grooved anvil disk was adopted (for which patent No. 220472 was granted to Jabez H. Gill, October 14, 1879, Rec., 33, 34), various other anvil disks were made and used by the United States in this type of cartridge shell in large quantities, which anvil disks, though differing from the Gill type in some respects, as well as from each other, secured adequate ventage from the fulminate chamber to the aperture at the top of the pocket by means of notches or openings through or at the outer portions of the said disks. (Rec., 23, 24.)

The Gill anvil disk has a groove across the upper side, and notches cut out of the disk at each end of this groove, so that when the disk is in place the entire area of each of these notches is over the fulminate chamber, and the fulminate flame passes through the notches to the groove, and by the groove to the powder chamber through the aperture at the top of the pocket. That portion of the disk which is between the notches serves as the anvil.

The complete cartridge, with this type of anvil disk, was known as the "reloading" cartridge. (Rec., 18, 19.)

On April 19, 1883, appellant filed a petition in the Court of Claims, alleging that the cartridges made and used by the United States were covered by his patent, and that the same had been made and used under an implied contract to pay him a reasonable royalty therefor. The case was tried, and this petition was dismissed by the Court of Claims June 1, 1885. On August 14, 1885, the appellant moved for a new trial, amendment of findings, and reversal of judgment. On December 14, 1885, the Court of Claims made the following order:

Motion of claimant for new trial overruled, with leave to submit to the consideration of the court findings 2, 3, and 4, amended in form requested by claimant in his motion, subject to objection of the defendants to their allowance. (Rec., 19, 20.)

On October 8, 1886, appellant filed his request for the amendment of the said findings in accordance with the order of the court, but no final action has ever been taken thereon. (Rec., 20.)

On August 21, 1885, appellant filed an application for an appeal to this court from the judgment of June 1, 1885, but has never moved for the allowance of the appeal.

On June 11, 1888, the appellant filed a petition in the Court of Claims, in the present case, setting up the grant to him of Letters Patent No. 212313, the manufacture by the United States of cartridges during the period since he had begun his previous suit, and the facts from which he claimed that a contract by the United States for the

payment to him of reasonable royalties for the manufacture of cartridges should be implied. (Rec., 1-9.)

On the trial of this case the court below made the following finding:

The facts in this case are the facts already found in case No. 13793 between the same parties as to the same subject-matter, except as to the time since the beginning of the other action, during which time, to wit, from the beginning of the other action to the beginning of this action, the Government manufactured cartridges of the same form and kind as those described in these findings, known as the "re-loading" cartridge; in which case, No. 13793, the following proceedings were had and the following facts were found, which facts are now found herein and are hereto annexed, as follows, to and including finding 8. (Rec., 13.)

In addition to repeating the findings which had been found in the first case, the court below made a finding as to the proceedings which had been had in the previous case, and decided, as a conclusion of law, that the petition be dismissed.¹ Additional findings were subsequently made at the claimant's request, the court being of the opinion that they were not in substance different from those theretofore filed, and did not affect the result theretofore reached. Afterwards these additional findings were amended at the defendant's request. Thereupon this appeal was taken. (Rec., 13-41.)

¹The statement in appellant's brief (p. 5), "The court filed no opinion in case 16261, but filed an opinion in case 13793," is calculated to mislead. The opinion in case 13793 was rendered June 1, 1885. Case 16261 was tried December 5, 1895, and the judgment (from which the present appeal was taken) was rendered December 23, 1895.

BRIEF OF ARGUMENT.**THE EFFECT OF THE DOCTRINE OF RES JUDICATA.**

As to this point, it is submitted that the judgment of the court below should be affirmed, because—

THE ONLY ISSUE PRESENTED IN THIS CASE WAS BETWEEN THE SAME PARTIES AND CONCERNING THE SAME SUBJECT-MATTER AS AN ISSUE UPON WHICH THE COURT HAD RENDERED ITS JUDGMENT ON JUNE 1, 1885, WHICH JUDGMENT HAS NEVER BEEN VACATED OR REVERSED.

The petition in the present case avers (Rec., 6) that "your petitioner has pending a suit for compensation up to March 31, 1883, case No. 13793, in the Court of Claims;" but the record of that case shows a judgment dismissing the petition entered June 1, 1885, and a motion for a new trial made and overruled, with leave to present amendments to certain findings subject to the defendant's objection. As that case stands, therefore, there is a judgment against the claimant, the present appellant, upon the question whether the Government reloading cartridge is covered by the claimant's patent No. 212313, the very issue (as the court below has found *as a fact*) presented in the present case. That judgment is final on its face, and has never been vacated, reversed, or modified in any way; and hence, by the well-known doctrine of *res judicata*, the court below could not in the present case do anything else than dismiss the petition.

In *Dubois v. P., W. & B. R. R. Co.* (5 Fish. Pat. Cas., 208) the plaintiff had sued for the use by the defendant company of his patented invention for building piers for bridges, averring that it had been used in five piers.

The issue was decided in his favor, whereupon he brought suit for the use of the same invention in nine other piers of the same bridge, and it was held that the only matter in issue having already been decided by a competent court, it was *res judicata*, and no defense could be allowed.

In *Barker v. Stowe* (11 Fed. Rep., 303), suit was brought for the alleged use of a patented device, and judgment was entered for the defendant. In a subsequent proceeding between the same parties for an alleged use of the same device, it was held that the issue "can not be tried again between the parties."

A verdict in favor of a patent is sufficient, without any other proof, to support an injunction against future violations of the patent right. (*Poppenhausen v. N. Y. Gutta Percha Comb Co.*, 4 Blatch., 184.)

A judgment between the same parties, on the same issues, by the same or a superior tribunal, is conclusive against the defeated litigant and his privies, as well as against all who so participated in the suit as to control the action. (Robinson on Patents, § 1017.)

This court has so recently and so thoroughly considered the doctrine of *res judicata* in the case of the *Southern Pacific Railroad Company et al. v. United States* (168 U. S., 1, 48) that it seems superfluous to dwell at greater length on this feature of the case, the court below having found *as a fact* that all the conditions requisite for the application of the doctrine of *res judicata*, namely, identity of issues, of parties, and of the characters in which the respective parties sue or are sued, exist as between the present case and that previously brought.

The appellant's assignments of error are found on pages 4-8 of his supplemental brief. Although the sole point on which the present case was decided was that of *res judicata*, no error is specifically charged as to this, and the only assignment of error that can cover the point is the general one (IX) that the court below erred in dismissing the claimant's petition. As far as the appellant's brief discloses, the contentions advanced against the finality of the former judgment appear to be as follows:

(1) Case No. 13793 is still pending in the Court of Claims on a motion to amend the findings of fact. (Suppl. brief, p. 2, last paragraph; also p. 9.)

(2) An application for an appeal from the judgment in that case has been filed, but the appeal has not yet been allowed. (Appellant's brief, p. 5; suppl. brief, p. 3; also p. 9.)

(3) Different issues are presented in cases Nos. 13793 and 16261. (Suppl. brief, p. 4, 3d paragraph.)

These contentions will be considered in their order.

The judgment in No. 13793 not affected by the motion to amend findings.

The record contains these entries of proceedings in case No. 13793:

August 14, 1885. Motions for new trial, amendment of findings, and for reversal of judgment filed by claimant.

December 14, 1885. Motion for claimant for new trial overruled, with leave to submit to the consideration of the court findings 2, 3, and 4, amended in form requested by claimant in his motion, subject

to the objections of the defendants to their allowance. (Rec., 20.)

This does not mean that there were three distinct motions—one for a new trial, a second for an amendment of the findings, and a third for the reversal of judgment—and that the court has overruled only the first. The motion for reversal of judgment is obviously but another form of motion for a new trial, and in entering its decision to overrule the motion for a new trial the court must necessarily be understood as overruling the motion for reversal of judgment also in case that motion could be considered to have any separate existence apart from the motion for a new trial. A mere motion to amend the findings is simply a motion for a revised statement of the facts as to certain specified points, without involving any change in the judgment; and certainly, even if that motion had been finally disposed of and the desired amendments had been made, the court would not have changed its previous judgment, because it had expressly announced that it would not have a new trial of the case, and hence that it intended its judgment to stand.

If a motion for a new trial had been pending, it could not have been regarded as affecting the judgment in any way until the motion was heard and the judgment vacated. (*Harris v. Barnhart*, 97 Cal., 546; *Chase v. Jefferson*, 1 Houston, Del., 257; *Young v. Brechi*, 19 Nev., 379.) In these cases it has been specifically held that a judgment will operate as *res judicata*, although a motion for a new trial be pending, and this is adopted by text writers as a correct statement of the law. (Black on

Judgments, sec. 512; Freeman on Judgments, sec. 328.) Even without the adjudication of courts upon the point, it is evident that a mere motion for a new trial can not in the absence of express statutory provision, impair the effect of a judgment of the court, as a party to a suit can not, by his unaided action, nullify what the court has announced as its final determination. In the present instance, however, the motion for a new trial was not pending, as it had been made and overruled, and there remained only the motion to amend the findings, which could have no conceivable effect on the finality of the judgment.

Appellant's supplemental brief (p. 3) further states that "a motion of the claimant to amend order of court heretofore entered as to evidence to be used on the trial allowed, subject to objections of defendants on the argument, was pending at the time of judgment in case at bar." Strictly speaking, this motion could not have been pending, because it had been allowed, yet even if it had been pending it could not have affected the finality of the judgment. Being a motion as to the evidence to be used at the hearing (the word "trial" is a misnomer, though the record so reads) of the motion to amend findings, it was necessarily subordinate to that motion, and could have no independent effect upon the judgment.

The judgment in No. 13793 not affected by the filing of the application for an appeal.

The record in case No. 13793 contains the entry: "August 21, 1885. Application for appeal filed by

claimant." (Rec., 20.) In the United States there is no universally accepted rule as to the effect of the allowance of an appeal upon the judgment appealed from, but the most reasonable rule would seem to be that until the judgment is reversed it may be set up as an adjudication of the questions at issue. (*Cloud v. Wiley*, 29 Ark., 80; *Allen v. Mayor*, 9 Ga., 286; *Moore v. Williams*, 132 Ill., 589; *People v. Richert*, 159 id., 496; *Burton v. Burton*, 28 Ind., 342; *Randles v. Randles*, 67 id., 434; *Willard v. Ostrander*, 51 Kans., 481; *Creighton v. Keith* (Neb.), 70 N. W. Rep., 406; *Sage v. Harpending*, 49 Barb. (N. Y.), 166; *Stevens v. Stevens*, 76 Supr. Ct. N. Y., 332; *Paine v. Schenectady Ins. Co.*, 11 R. I., 411; *Thompson v. Griffin*, 69 Tex., 139; *Westmoreland v. Richardson*, 2 Tex. Civ. App., 175; and see *Burgess v. Hill*, 21 Mo. App., 313.)

In the present instance no appeal was ever allowed, the record showing merely that an application for an appeal was filed. The only effect of filing an application is to stop the running of the limitation of time for granting the appeal (see Rule III relating to appeals from Court of Claims), and until a motion for allowance is made (in open court, or before the Chief Justice in vacation) and the allowance ordered, the finality of the judgment can not, under the practice of any court, be attacked. The statement in appellant's brief (p. 5), "Appeal entered of record in abeyance," is manifestly erroneous. Whatever an appeal "in abeyance" may be, certainly no appeal had been "entered of record," for none had been allowed. An application and notice had been filed of record, but nothing more.

The issue in the present case the same that had been decided in No. 13793.

The appellant's supplemental brief contains the following statement (p. 4):

A different issue is presented in cases No. 13793 and No. 16261, not only because different manufacturers [manufactures?] are the basis of the two suits, but also because different and material facts were presented to the court for consideration.

Even if this statement were true the court could not entertain it, as it relates to a matter of fact, not to a matter of law. If in any case the fact of the identity of an issue therein with an issue which has already been decided in another case between the same parties is clearly shown by the record of the prior case, so that no question can arise, the court applies the doctrine of *res judicata* precisely as if the question of identity of issues had been controverted and a jury had decided that they were identical. (*Munn v. Shannon*, 86 Io., 363.) Where, however, the identity is controverted, and evidence is presented, the question of identity of issues must be decided upon the evidence, like any other question of fact. (*Amsden v. Dubuque, etc., Rwy. Co.*, 32 Io., 288; 1 Greenl. Ev., 15th ed., §532; 2 Black on Judgments, §631.) In either case the question of identity is merely one of fact, the only difference being that in the former case the record answers the question at the start, so as to leave no room for controversy, while in the latter case the question must be decided upon the evidence presented.

In case No. 13793 the issues decided were clearly shown by the record, so that it was evident from a mere inspection of that record that the sole question in issue in the present case (viz, the question of whether the reloading cartridge was covered by patent No. 212313) was raised and decided in case No. 13793. Hence the court below did not need to consider any evidence on the question of identity of issues outside the record in case No. 13793, nor was any such evidence presented; but this did not render the question any the less a question of fact; and hence the court's finding, *as a matter of fact*, that the issue was the same as that previously decided, can not be the subject of review in this court.

Appellant's theory seems to be that as the court ultimately consented to make additional findings, some of which correct in a few details the statements of the original findings of fact, it follows that the issue in the present case was not the same as in case No. 13793. All these additional findings, however, were made because the court held that they were in substance not different from the original findings and did not affect the result previously reached.¹ (Rec., 21, 23.) The appellant disputes this, saying that the amendments "reverse and

¹The statement in appellant's supplemental brief (p. 4) that "such additional facts and exhibits were not regarded by either claimant or defendant as sufficient to present the issue, and upon motion of claimant and defendant three amendments of findings, five additional findings, and ten exhibits were found," calls for a brief explanation as regards the defendant. Neither the additional findings nor the amendments to the original findings have any bearing upon the one issue upon which the case was decided, viz, that of the prior adjudication; but the claimant sought and

annul or contradict or correct" the findings made in case No. 13793. (Appellant's brief, p. 5.) Now, it is wholly immaterial how far the additional findings differ from those originally made, unless they show that the *issue* presented in the present case was not presented in case No. 13793. A different presentation of facts in a subsequent case does not weaken the force of a judgment in a previous case, if the issue was the same. Where *res judicata* is set up, the only question that can be asked is, Was the present issue raised and decided in the prior case? If it was, then it is immaterial whether there is evidence which, if produced in the prior case, would have caused it to be decided differently. The question is not, Was the prior case rightly decided? It is, Was the present issue decided in that case? The former judgment is binding until reversed on appeal taken from it, whether it was correct or not. (*Nations v. Johnson*, 24 How., 195, 202.)

Whatever differences there may be between the original and additional findings it is clear that the latter relate only to the issue of whether patent No. 212313 covers the reloading cartridge, an issue decided in the former case. It is immaterial that in that case "the cup-

obtained additional findings in regard to another issue, viz, whether patent No. 212313 covered the reloading cartridge. In view of the decision that had been made, counsel for the United States considered that this other issue was wholly irrelevant; but since the court had seen fit to make additional findings in regard thereto, it was evident that such findings ought not to be one-sided, and hence additional findings were sought and obtained for the defendant. Such additional findings would not, however, have been requested had not original findings been already made at the instance of the claimant.

anvil cartridge was the main issue." (Appellant's suppl. brief, p. 12.) It was only the main issue as regards the number of cartridges and the amount of money involved. The issue as to the reloading cartridge was just as squarely raised as that in regard to the cup-anvil cartridge, and the decision in regard thereto was just as final. Appellant's counsel now state that the reloading cartridges for which claim was made in case No. 13793 were "*experimentally* manufactured." (Suppl. brief, p. 2.) The record contains nothing to warrant such a statement. It shows that "the manufacture of the reloading cartridge" began in July, 1879 (Rec., 12), and that the petition in No. 13793 was filed April 19, 1883, nearly four years later. Presumably the United States manufactured all the reloading cartridges that were called for during that period, but even if such manufacture had been (what the record does *not* show that it was) experimental, yet, having been the subject of a claim, the issue of whether patent No. 212313 covered the reloading cartridge was raised and decided.

The statement that "the case was tried on the merits under the general traverse" (suppl. brief, p. 3) was presumably not intended as an argument against the effect given by the court below to the prior judgment. It is too well settled to need a citation of authority that the defense of *res judicata* is as valid under the general issue as when specially pleaded in bar.

It is therefore submitted that none of the appellant's contentions against the application of the doctrine of *res judicata* are maintainable, and that the appeal should be dismissed without further argument.

THE MERITS OF THE CLAIM ON THE PATENT.

If for any reason the court should see fit to hear argument in regard to the claim on the patent, it is submitted that there is nothing in the patent, when properly construed, to support the claim made in this case.

The assignments of error.

There is an apparent conflict between the appellant's brief and additional brief, on the one hand, and his supplemental brief on the other, as to what the assignments of error are. The brief and additional brief are divided into sections, numbered I to XXV, each stating that the court below erred in some point, and following this statement with an argument in support of it. The supplemental brief, on the other hand, contains, apart from the argument proper, a distinct assignment of errors, covering points numbered I to IX. Presumably these latter are intended as the real assignments of error.

Most of the errors assigned (viz, Nos. I-VI and VIII) relate to the findings of fact. It is submitted that error can not be assigned on account of the findings of fact unless the trial court below has either based its finding upon inadmissible evidence or has excluded proper evidence which, if admitted, would have necessitated a different finding. If the the trial court has so erred, a finding of the evidence admitted or rejected should be made, in order to enable this court to determine whether or not the admission or rejection involved error. In the present case the appellant has not done this, and hence there is nothing in the record to enable the court to con-

sider these assignments of error. This will be clearly seen by reviewing the assignments, as follows:

I. The drawings accompanying the caveat of April 13, 1865, the application of the same date, and patent No. 213313 are now in the record, so that the objection to their omission is cured. Whether the whole of the caveat and application, and of the application of January 23, 1872, should have been found depends upon whether they constituted "ultimate facts" or not, a question which can not be determined, as they are not in the record (unless the words "with application of claimant" in Finding XIII were meant to include in the exhibit the application of April 13, 1865, as well as the drawing); while, if they were in the record, their omission from any particular finding would not be error.

II. How far Findings V and XI are inconsistent can only be determined by a careful comparison of them, which appellant has not seen fit to make. If any statements in Finding V are corrected in Finding XI as to any material point, the court will take notice of such corrections, but the fact that such corrections were required can not be ground for an assignment of error.

III and V (there is no IV). A description of the cup-anvil cartridge was properly given in the findings in case No. 13793. As the present case was decided on the doctrine of *res judicata*, a recital of all the findings in the previous case was not improper, even if not absolutely essential. Besides, the fact that the appellant for years claimed that his patent covered the cup-anvil cartridge is a part of the history of the case, while that type of car-

tridge is part of that "state of the art" which must, to some extent, control the scope of claims in patents.

If the reloading cartridge is misdescribed in the findings (and it is submitted that such is *not* the case), such misdescription is mere surplusage, as the cartridge itself is an exhibit, and hence no error can be assigned as to this.

VI. Whether or not the "ultimate facts" are correctly shown by Finding IX could only be determined if the record of that case, or a transcript of the docket entries, were before the court. As they are not, no error can be assigned.

VIII. If the amendments to Finding XII involve indefinite statements, they will carry less weight than they would otherwise; but no error can be assigned on this ground. The statement in the last paragraph of this assignment (see also addl. brief, pp. 15, 16) that the anvil shown in the exhibits of the reloading cartridge is not the Gill patented anvil is erroneous, as they are clearly the same. In fact, the court is aware of this, as the use of the Gill anvil by the Government in its cartridges was the subject of a claim in *Gill v. United States* (160 U. S., 426).

As to Assignment VII, it is enough to state that this appeal is from the judgment of December 23, 1895, dismissing the petition, and *not* from the order of April 13, 1896, overruling the motion for a new trial.

It is therefore submitted that no error is really assigned in any of the assignments of error except the ninth and last.

The patent in the light of the file wrapper and contents.

It is submitted that patent No. 212313 was granted solely for a cartridge with an anvil plate "provided with two or more openings, whose *inner* edges nearly coincide with the edges of the central chamber of fulminate," a feature not found in the reloading cartridge.

This court has frequently held in suits on patents that the evidence contained in the file wrapper and contents of the proceedings in the Patent Office upon the application for a patent is relevant as showing the precise matter for which the patent was granted. It is true that the correspondence between the applicant for a patent and the Commissioner of Patents or his examiners can not be allowed to enlarge, diminish, or vary the *language* of a patent afterwards issued—that is, it can not have the effect of adding any words to the patent or taking any from it—but when it comes to the *interpretation* of the language used, the understanding of the applicant and the Patent Office is of some importance as evidence. (*Goodyear Dental Vulcanite Co. v. Davis*, 102 U. S., 222, 227.)

This understanding of the parties is especially important where the applicant for a patent for a combination has been compelled by the rejection of his original application to narrow his claim by the introduction of a new element, or of limitations or provisos. In such a case he can not afterwards contend that his patent should be interpreted as if the element so introduced were not an essential feature of the combination, or that the limitations or provisos should not be strictly construed against

him. (*Sargent v. Hall Safe and Lock Co.*, 114 U. S., 63, 86; *Shepard v. Carrigan*, 116 U. S., 593, 597; *Sut-ter v. Robinson*, 119 U. S., 530, 541; *Crawford v. Hey-singer*, 123 U. S., 589, 607; *Roemer v. Peddie*, 132 U. S., 313, 317; *Dobson v. Lees*, 137 U. S., 258, 265; *Knapp v. Morss*, 150 U. S., 221, 229; *McCarty v. Lehigh Val-ley R. R. Co.*, 160 U. S., 110, 119.)

Similarly, where a claim has been rejected, and such rejection acquiesced in by the applicant, this fact is im-portant as estopping him from contending that the re-maining claims, or any of them, should be so construed as to cover the subject-matter of the rejected claim. (*Morgan Envelope Co. v. Albany Paper Co.*, 152 U. S., 425, 429.)

The differences between the specification and claims of a patent as granted, and those upon which the applica-tion was made—the abandonment, rejection, or modifica-tion of claims, and the introduction of limitations or pro-visos—are disclosed by the file wrapper and contents, and by nothing else. To determine the proper construc-tion to be placed upon the claims of a patent, it is there-fore necessary “to consider the *action of the Patent Office* upon the original application of the patentee” (*Knapp v. Morss*, 150 U. S., 221, 224), or, in other words, to consider the file wrapper and contents. As is stated in *Robinson on Patents*, section 1015—

The principal documentary evidence available in actions for infringement is drawn from the files and records of the Patent Office. * * * The appli-cation for the patent and the correspondence of the applicant with the Patent Office in explanation or

assertion of his rights may be produced as declarations accompanying an act, and as tending to define the nature of a patented invention, and the relations toward it of the applicant and patentee.

Hence the facts shown by the file wrapper and contents are essentially relevant and material to an issue involving the construction and interpretation of the claims of a patent.

In view of the practice of this court to consider the file wrapper and contents, the court below was asked to make a finding of the facts as to the proceedings in the Patent Office as they appeared in the file wrapper and contents; but the court declined to do so on the ground that the proceedings in the Patent Office "do not constitute such facts as the court is required to find under Rule 1 of the Supreme Court relating to appeals from the Court of Claims." (Rec., 41.) Believing, however, that the court below was in error on this point, counsel for the appellee requested that court to include in the record the motion which had been made for a finding, and the court's action thereon, which was accordingly done, as appears from pages 38-41 of the record. Owing to an oversight on the part of the chief clerk of the Court of Claims, this portion of the record was not transmitted to this court along with the rest of the record, but was transmitted separately at a later date.

In a later case the Court of Claims took a different view of Rule 1, and has included in its findings the substance of the proceedings in the Patent Office, as evidenced by the file wrapper and contents (*Kelton v. United*

States, 32 C. Cls. R., 314; see *Finding XII*, pp. 329-334); so that if the findings in the present case had been made according to the present practice of the Court of Claims, a finding as to the proceedings in the Patent Office would have been made in the first instance.

The matters disclosed in the file wrapper and contents in an application for a patent must have precisely the same materiality and must be admissible in evidence to precisely the same extent in a suit against the United States in the Court of Claims as in a suit between private parties in any other court, and therefore those proceedings being before this court in the record in this case, they will be referred to as if they had been originally incorporated in the findings by the court below.

The first point of difference to be noted between the cartridge covered by the appellant's patent and the Government reloading cartridge is that in the former only a small portion of the openings in the anvil are over the fulminate chamber, while in the latter the openings are wholly over that chamber. As to this it is submitted:

THE RELATIVE POSITION OF THE VENTS AND THE CIRCULAR WALL OF THE FULMINATE CHAMBER IS A MATERIAL PART OF THE APPELLANT'S PATENT—I. E., THESE VENTS MUST BE SO PLACED AS REGARDS THE AXIS OF THE CARTRIDGE THAT ALL BUT A VERY SMALL PORTION OF EACH VENT SHALL BE FURTHER FROM THAT AXIS THAN IS THE CIRCULAR WALL OF THE FULMINATE CHAMBER.

In the appellant's original application of December 28, 1878, the specification (Rec., 38, 39) ended just before

the last paragraph on the second column, page 29 of the record, and the claims were as follows:

First. The circular plate E, constructed with central solid resisting piece *i*, and two or more perforations *k k*, substantially as described, applied within a metal case, with cylinder and rear end solid and tight, thereby requiring the insertion of the plate and charge and priming from the front, igniting the charge, and remaining fire-tight in firing as described.

Second. The circular plate 'E, constructed as described, in combination with the circular disk D, and metal solid fire-tight case A, substantially as shown and described.

Third. A circular metallic, tight-fitting plate, perforated into a central fulminate chamber, leaving a central solid or unperforated bar over the fulminate chamber, within a solid fire-tight metal case substantially as set forth.

The examiners, who, as the appellant not merely admits but goes out of his way to state in his petition (Rec., 4), "had fully educated themselves" and "understood the invention," rejected these claims; the first and third upon those of Moffatt, 53168, Tibbals, 90607, and English patent 2906 of 1865; and the second on the English patent alone. The Moffatt patent (see American patents filed with this brief, p. 2) is for a solid-headed, rimmed, centre or rim fire cartridge, inside-primed, with a removal metallic disk to serve as an anvil. The Tibbals patent (*ibid*, p. 24) is for an inside-primed centre-fire cartridge, with a folded head, reinforced by a perforated cup, which also serves as an anvil. The English patent to Millar, No. 2906 of 1865 (see appendix to this brief),

shows an inside-primed, centre-fire cartridge with a solid head, rimmed, with an anvil over the fulminate and two or more apertures through the anvil-disk, connecting the fulminate chamber with the black-powder chamber. While these cartridges differ from each other in certain details, they all bear a strong resemblance to the Hubbell device, and it may be confidently asserted that the appellant's three original claims were all properly rejected, as they manifestly covered nothing that was not to be found in at least one of these prior devices.

Forced to limit his claim to some feature which these prior devices did not contain, the appellant amended his specification by adding the paragraph (Rec., 39-40) describing the *distinguishing feature* of his invention. The gist of this new descriptive paragraph is contained in the words :

This [fulminate] chamber at its sides or outer extreme edges communicates directly and exclusively with the powder charge, so that the explosive force of the fulminate is not allowed to expand under a larger area of the anvil plate and blow it out, but is compelled to diffuse its explosive force. * * * To effect this the central anvil piece has no central aperture, is as wide as the fulminate-filled chamber, and the perforations are at the extreme outer side of this fulminate *for two purposes*; one is, to diffuse the fire from this center most thoroughly; the other is, to have an unperforated anvil over and against the fulminate, as it rests solid in its chamber, to receive the central blow of a striker, and obtain complete resistance by the anvil bar, and yet have free escapement for the explosive force, at once from beneath the anvil plate, without any chamber or space for it to expand into under the plate.

At the same time the appellant struck out all his three original claims and substituted a single claim, as follows (Rec., 40):

The construction and arrangement of the chamber of fulminate, anvil, plate, perforations, and case, with the central-constructed, filled chamber of fulminate powder in contact and between the base of the case and the circular anvil-plate, with central anvil-bar and two or more side perforations extending from the extreme sides of the chamber of fulminate into the base of the powder charge, whereby the smallest area of resistance is presented to the fulminate explosion, and the fire is diffused in the base of the charge of powder, and the greatest resistance is presented by the front face of the plate to the powder charge, consuming the powder and securing the plate as and by the means described.

The same examiners, whose qualifications the appellant has admitted, rejected this claim as "vague, indefinite, and ambiguous," but held that the construction shown (shown, that is, in the specification and drawings) *as now understood* (*i. e.*, as explained in the new paragraph of the specification) involved patentable novelty, so that a claim might be allowed, if specific and well defined. (Rec., 40.)

The appellant then further amended the amendment to his specification by inserting the reference to the solid head of the shell, and he substituted the following as the single claim for which a patent was asked:

In the bottom of a solid metallic-flange cartridge case, or shell, the combination of a circular base inclosing a central chamber of fulminate, and an anvil over the fulminate provided with two or more openings,

whose inner edges nearly coincide with the edges of the central chamber of fulminate in the base of the cartridge, substantially as described. (Rec., 40.)

As so limited and defined the claim was allowed and the patent granted.

It is clear from this comparison of the original specification and claims with the amended specification and the claim ultimately allowed, that whether the appellant be entitled to a broad construction of his claim or not, the claim itself is a very narrow one. The claim is *not* for the circular plate E with solid anvil bar and perforations, applied within a solid-head cartridge shell (first rejected claim), *nor* is it for the plate E constructed as described, in combination with the circular disk D and the solid-head cartridge shell (second rejected claim), *nor* for a circular plate perforated into a central fulminate chamber, leaving a solid anvil bar over the fulminate chamber, within the solid-head cartridge shell (third rejected claim), *nor* for the construction and arrangement of the fulminate chamber, anvil plate, perforations, and case, as described in the specification, so as to diffuse the fire in the base of the powder charge and consume the powder (first amended claim, rejected). These mechanical combinations are found in the appellant's cartridge, but they are not what constitute its novelty, nor are they covered by the patent. The patent is not granted for a claim for the combination in the bottom of a solid metallic-flanged cartridge case or shell of a circular base inclosing a central chamber of fulminate, and an anvil over the fulminate provided with two or more openings. Such a claim would not have differed from those that were rejected. The one

sole feature of the combination which entitled it to be patented was this, that the anvil plate E had "two or more openings whose *inner* edges nearly coincide with the edges of the central chamber of fulminate in the base of the cartridge."

It was not until the appellant introduced into his specification the new paragraph stating that "The distinguishing feature of my invention is the organized construction. * * * In this organization the fulminate * * * is contracted into a * * * small central chamber and fills it. * * * This chamber at its side or outer extreme edges communicates directly and exclusively with the powder charge. * * * To effect this the central anvil piece has no central aperture, is as wide as the fulminate-filled chamber, and *the perforations are at the extreme outer sides of this fulminate*;" that the examiners stated that the construction involved patentable novelty, and it was not until the appellant specifically described the combination which he sought to patent as containing the element of an anvil plate with openings placed *in a particular position* with regard to another element (i. e., "openings whose inner edges nearly coincide with the edges of the central chamber of fulminate") that any patent was granted. The state of the art when the patent was granted (which will be alluded to below) demonstrates the propriety of the action of the examiners in refusing to allow a patent until the appellant had limited his claim to the particular combination finally described therein, but even if the examiners' views had been incorrect and their action improper, even if they ought not to have refused the application with the claims as originally worded, the

fact remains that the words, "whose inner edges nearly coincide with the edges of the central chamber of fulminate," words describing the position of the openings in the anvil plate E, inserted in the claim, after the rejection, are the vital words of the patent, without which, or their equivalent, it would not have been granted, and that no form of cartridge construction to which these words are not applicable can possibly be regarded as covered by the patent. As was said in *Shepard v. Carrigan* (116 U. S., 593, 596):

Where an applicant for a patent to cover a new combination is compelled by the rejection of his application by the Patent Office to narrow his claim by the introduction of a new element, he can not after the issue of his patent broaden his claim by dropping the element which he was compelled to include in order to secure his patent. (Citing *Leggett v. Avery*, 101 U. S., 256, and other cases.)

The description of the openings in the anvil plate as openings "whose inner edges nearly coincide with the edges of the central chamber of fulminate," is manifestly such a limitation as must prevent the claim from receiving a broad interpretation.

In patents for combinations of mechanism, limitations and provisos, imposed by the inventor, *especially such as were introduced into an application after it had been persistently rejected*, must be strictly construed against the inventor and in favor of the public, and looked upon as in the nature of disclaimers. (*Sargent v. Hall Safe and Lock Co.*, 114 U. S., 63, 86.)

In the reloading cartridge the whole of the vents are directly over the fulminate chamber, and their outer, not

their inner, edges coincide with the edges of the latter. Hence this type of cartridge is clearly outside of the claim in patent No. 212313.

The patent in the light of the state of the art.

In view of the express limitation introduced into the claim by the appellant himself, the state of the art at the time the patent was granted is really immaterial, but as the court below did not consider that a finding as to the limitations placed upon a patent by the appellant himself was authorized by the rules of this court, it may be as well to refer to the state of the art in order to show that even if it did not appear affirmatively from the record that the appellant had himself limited the scope of his claim, it could not, in any event, be entitled to any other but a strictly limited interpretation.

The British patent to John Millar, No. 2906, of 1865 (see appendix to this brief), shows both an outside-primed cartridge, like that made by the Government, and an inside-primed one, like the appellant's. The latter is shown with a solid, flanged head, a central fulminate chamber, and an anvil disk over the fulminate, ventage being secured either by holes through the disk or by notches at the outer portion. The holes were shown directly over the fulminate chamber, and this position of the holes constitutes the only difference between this type of cartridge and that described in the appellant's claim. The notches would manifestly secure a much less free ventage than would the holes, as only a portion of the notches would be over the fulminate chamber. In fact,

these notches could practically be described as "openings, whose inner edges nearly coincide with the edges of the central chamber of fulminate in the base of the cartridge," and it is difficult to see how, in view of the existence of this form of the Millar device, the appellant's cartridge, as described in his claim, covered any feature of patentable novelty whatever.

Appellant's counsel seeks to evade the effect of this patent by objecting that the detonating substances mentioned are chlorate of potash and amorphous phosphorus, which are kept separate until struck by the plunger, whereas the claimant's patent mentions "fulminate of mercury or detonating powder," called in the claim simply "fulminate." Whatever the respective merits of chlorate of potash and amorphous phosphorus on the one hand, and of fulminate of mercury on the other, for the purpose of ignition by concussion, they were, mechanically speaking, equivalents, performing the same function (*viz*, ignition) in the same way (*viz*, on being struck).

For the convenience of the court copies of the following patents are filed with this brief:

The patent to Moffatt, No. 53168, March 13, 1868, shows various types of cartridge shell, including the solid-flange type (figs. 8, 12), and a metal anvil of peculiar shape placed over a percussion wad and held down by lugs in the inside of the shell. The ventage was exceedingly free and directly over the percussion wad, which had a fulminating material applied at its center and around its periphery, so that the cartridge would be discharged if struck either at the center of the base or near its periphery.

The patent to Gatling, No. 78953, June 16, 1868, shows a cartridge with a hollow-rimmed head, reinforced by a cap, a central fulminate chamber, with an anvil over it, with vents directly over the fulminate chamber.

The patent to Tibbals, No. 87125, February 23, 1869, shows a cartridge shell with a substantially solid flange, the said flange being, however, cut into a little from the inside in order to allow an anvil disk to be sprung into the enlarged portion of the inside of the shell and held there, a central fulminate chamber, and a vent, through the anvil disk over one side of the fulminate chamber.

The patent to Roberts, No. 87297, February 23, 1869, shows a hollow-flanged shell, the hollowed portion holding in place an anvil with a cup containing fulminate on the lower side and apertures at the side of the cup.

In the patent to Van Vechten, No. 87735, March 9, 1869, the anvil, which is cup-shaped, is described as "having at or near its centre one or more holes for the passage of the fire from the priming to the charge of powder."

The patent to Tibbals, No. 90607, May 25, 1869, shows a hollow-rimmed shell, reinforced by an anvil cup, with two or more small holes directly over the fulminate.

These patents, all for inside-primed cartridges, show various types of anvils and various positions of the vents, and three of them show a solid-flanged head. Certainly there was nothing in the appellant's combination that was not covered by what had preceded it, except the position of the vents, "whose inner edges," i. e., the edges towards the axis of the anvil plate, "nearly coincide with

the edges of the central chamber of fulminate," and hence the appellant's claim must be limited to that precise construction, whether the proceedings in the Patent Office be inquired into or not.

Appellant's counsel seek to meet these patents with the irrelevant answer that they do not show anticipation. (Suppl. brief, pp. 24-26.) They were not introduced to show anticipation of the precise combination for which patent No. 212313 was granted, but to show that the only feature in that combination which gave novelty to it was the precise position of the vents in the anvil plate, a feature which is not found in the reloading cartridge. Appellant's application in 1878 showed a cartridge which differed but slightly from several that preceded it, so that a broad construction would be impossible even if the language of the claim were not itself such as to limit it very narrowly.

Besides the state of the art as shown by these patents, the findings show that the Government had made and used the reloading cartridge, with very nearly its ultimate construction, from the year 1872. The case was exactly the same, and the only difference in the organized cartridge was in the precise construction of the anvil disk. Various types of disk were used, perforated by notches or openings so as to secure adequate ventage from the fulminate chamber to the aperture in the base of the powder chamber. (Rec., 23.) These disks did not have the "groove extending directly across its face and backward through the edges," which constituted the essential feature of the Gill anvil disk (Rec., 34), but they were operative disks, and the cartridges so organized were

made and used in large quantities. This fact still more clearly limits the claim of patent No. 212313 to a cartridge with a disk with vents "whose *inner* edges nearly coincide with the edges of the central chamber of fulminate."

In this connection appellant's criticism (Suppl. brief, p. 10) of Finding VI may be answered. The words of that finding, "This cartridge contains only the black powder and bullet," do not refer to the complete cartridge, but they clearly refer only to the interior of the shell as distinguished from the outside pocket in its head. It is true, as the finding states, that various types of anvil disks can be and were used with this type of shell, and the fact that the cartridge must be primed before it is loaded does not derogate from the correctness of the description of its construction and operation as given in Finding VI.

Differences between Hubbell cartridge and reloading cartridge are essential.

The contention of appellant's counsel, that the reloading cartridge is identical with that covered by patent No. 212313, involves utter disregard of two essential differences, viz:

(1) The difference in the shape and position of the vents.

(2) The difference in the priming.

The one feature of the Hubbell cartridge which distinguishes it from prior inside-primed cartridges is that the anvil plate has "two or more openings whose *inner*

edges nearly coincide with the edges of the central chamber of fulminate." The specification states the purpose of this construction to be twofold: First, to compel the diffusion of "the explosive force of the fulminate" "into the base of the powder charge," and, second, to leave a solid anvil over the fulminate to resist the blow of the striker. That part of the anvil in the reloading cartridge which receives the blow of the striker is narrower than the corresponding part of the anvil in Hubbell's cartridge; but the chief difference between the two constructions is that in Hubbell's device only a portion of each vent is over the fulminate chamber, their "inner edges nearly coinciding with the edges" of that chamber, their outer parts being over the unperforated part of the disk D, while in the reloading cartridge the vents are wholly over the fulminate chamber, and do not lead directly to the powder chamber, as the Hubbell vents do, but lead to a channel cut across the upper face of the anvil, and by this to a hole in the base of the powder chamber. By this latter construction, while the resisting force of the anvil at its centre is not diminished, the explosive force of the fulminate is compelled to enter the powder chamber in a central stream, instead of being compelled to diffuse itself as in the Hubbell device. This diffusion, which is impossible in the reloading cartridge, the appellant considered "the distinguishing feature" of his invention, as the importance attached to it in the specification clearly shows.

In seeking to identify the reloading cartridge with the appellant's device his counsel deny that the position of the vents is material to the combination (see brief, p. 3,

par. VI), and do not regard the words "inner edges" as in any way limiting the description of the vents in the claim. So strongly do they hold to this view that in the quotation from the claim in the supplemental brief (p. 13, line 16) the word "inner" is omitted, evidently because they thought it immaterial whether this word appeared in the quotation or not.

It has already been shown, by reference both to the file wrapper and contents and to the state of the art, that the claim in the Hubbell patent would not and could not have been allowed had the position of the vents not been made a limitation of it, but even if the patent alone were before the court its language limits the claim so explicitly that it could not be extended to cover a cartridge where the vents of the anvil disk are constructed as in the re-loading cartridge.

Appellant's counsel seek to belittle this essential difference in the construction of the vents by stating that the powder runs down through the hole in the base of the powder chamber and lies in the groove across the upper face of the anvil. (Suppl. brief, 10-12.) The fact that a few loose grains of powder fall into the groove (or even drop through the notches on to the fulminate) does not affect the operation of the fulminate when exploded. Whatever powder drops through drops loosely, and is not rammed tightly down, as is the powder in the powder chamber. When the fulminate is exploded, its flame ignites these loose grains; but as the explosive force of the fulminate is vastly greater than that of a few loose grains of powder, it simply sweeps them along as they ignite, but enters the powder chamber with practically the same

force and in the same way as if these loose grains had not been in the groove at all. Their effect is too insignificant to be taken note of, and hence, as regards the way in which the fulminate flame enters the powder chamber, it is not true to say that "the groove constitutes the bottom of the powder chamber."

Another essential difference between the two types of cartridge is that the Government's cartridge is outside-primed, the appellant's inside-primed.

The appellant's specification says "open only at the front end B, to be primed and loaded at this front opening." So, too, the first claim in the original application for the patent expressly describes the metal case as being made "with cylinder and rear end solid and tight, thereby *requiring* the insertion of the plate and charge and priming from the front." (Rec., 40.) These descriptions make it clear that the cartridge covered by the appellant's patent was necessarily inside-primed, and could not be outside-primed, and hence that in the modification suggested, viz, "the fulminate chamber C may be recessed or formed in the metal of the circular plate E, with central bar *i*, and two side perforations, *k, k*, over it, dispensing with the paper," the chamber C is intended to be recessed from the upper side of the base of the cartridge and not from its lower side, as in the Government cartridge. The same intention is manifest from the rest of the specification, for there being no provision for closing the hole that would be left in the base of the cartridge if the fulminate chamber were recessed from the outside, it is clear that such a modification would be inoperative.

The words, "in the bottom," in the claim of the patent must therefore be understood as limiting the claim to an inside-primed cartridge, while the primer of the Government cartridge "is not in the bottom of the shell" in the sense in which the primer of the appellant's cartridge is, but is in an outside pocket. (Rec., 18.) That this distinction is a substantial one becomes evident when it is reflected that one of the objects for which the Government cartridge is made is that it should be capable of being reloaded. With an outside-primed cartridge, the cup which holds the fulminate is used but once, but the cartridge shell itself is not injured by the blow of the hammer; whereas the base of an inside-primed cartridge is indented by the blow, and must be flattened out before it can be reloaded, while, as this part of the base is very thin, it evidently can not stand many blows. For reloading purposes an outside-primed cartridge is manifestly superior.

The appellant's cartridge must be crimped in order to hold the anvil and the disk D in place, whereas no such crimping is required in the Government cartridge. This is also a substantial difference between the two, because the appellant's cartridge would have to be straightened out and recrimped every time it was reloaded, a fact which would not only make the reloading process much more difficult than with the Government cartridge, but which would also render reloading more than once or twice impossible, owing to the weakening of the metal. The retention of the anvil and disk in the appellant's cartridge by crimping, or some equivalent means, being therefore

indispensable, the words in the claim, "substantially as described," must be understood as including in the claim substantially the method of holding the anvil and disk in place when the cartridge is fired described in the specification, a method which has no equivalent in the Government cartridge.

The caveat and various applications do not help the appellant's case.

It seems to be contended (Suppl. brief, p. 22) that the appellant's caveat of 1865 and certain rejected applications for patents for cartridges, all of which are referred to on pp. 13-16 of the record, showed that the appellant had invented, prior to the date of the application for patent No. 212313, a type of cartridge substantially the same as the reloading cartridge, or at least that he had invented a "system" which reached perfection in his patented cartridge. It is submitted that even if this contention were correct it would be wholly irrelevant, because the issue as between the reloading cartridge and that covered by patent No. 212313 is simply whether the two are the same. Unless the reloading cartridge is covered by patent No. 212313, the Government has a right to use it without regard to who may have invented it.

There is, however, nothing in the record to warrant the contention. In regard to the caveat of April 13, 1865, the court below has found that "no method of communication from the fulminate to the powder was provided, nor any mention made of an anvil." This

being so the caveat can not from any point of view have any bearing on the case whatever.¹

The application of April 13, 1865, was for a centre fire cartridge with hollow flange, the interior of the flange holding the rim of a perforated anvil plate. Not only was this device manifestly different from that shown in the patent No. 212313, but as the application for a patent for the former was rejected, the record fails to indicate to what extent, if at all, it contained any feature that was a patentable novelty in 1865.

The application of April 25, 1872, was for a cartridge with "a circular metallic anvil, perforated and secured by a bite of the case of the same metal immediately in front of the fulminate." This type of cartridge undoubtedly resembles that for which patent No. 212313 was granted, but the vents or openings through the anvil disk are not confined to any particular position, as they are in the latter type of cartridge. Presumably, it was this failure to indicate the position of the vents which rendered the claim too broad, and necessitated its rejection.

It is to be observed that the petition in the present case alleges not merely that the appellant's successive applications were all for substantially the same invention, but also that the reason why no patent was granted until 1879 was because the examiners up to that time failed to understand his invention. An examination of the applications, however, shows directly the contrary of this, namely, that the rejected applications were all for

¹ Appellant's brief (p. 7) refers to a model of the cartridge to which the caveat refers. Appellee's counsel have repeatedly asked to see this model, but apparently it can not be found.

much broader claims than that allowed in 1879, and that the action of the Patent Office has been thoroughly consistent all along.

THE DAMAGES CLAIMED.

In view of what has been said above, it seems superfluous to point out that there was no implied contract in the present case or to dwell on the request of appellant's counsel (Suppl. brief, pp. 28-29) that this court should not merely reverse the judgment, but should also direct judgment to be entered in the appellant's favor for a certain sum, viz, \$157,508.98.

Even if it were possible that the judgment should be reversed, it is submitted that the findings do not warrant the further step desired. The findings show the cost of the reloading cartridges which were involved in case No. 13793, but not of those for which the present suit is brought. Those in the former suit were comparatively few (the claimant says that they were made experimentally), and it is to be presumed that the cost of the much larger quantity involved in the present suit was somewhat less per thousand, it being a general rule that the cost of each separate article decreases with an increase in the number made. Moreover, what would constitute a reasonable royalty for cartridges made before March 31, 1883 (which was what was found in case No. 13793), would not necessarily constitute a reasonable royalty after that date, as rates of royalty depend on the number of devices in the market for the purpose of securing the same end though by different means, and it is probable that this number did not remain the same.

In computing the sum for which they ask judgment, appellant's counsel have treated primers for reloading as if they were shown to have been used. Even if the reloading cartridge as a whole was covered by the claimant's patent, its primer by itself (i. e., the Gill patent anvil and a small cup containing fulminate) was not, for, as appellant's counsel repeatedly state, the patent is for "an organized cartridge." Until the primer was affixed to a cartridge nothing existed which came within the patent, and there is no *evidence* that any of the 65,841,675 primers referred to were ever so affixed. Besides, the royalty of \$1.50 per thousand was computed on the cost of *new* cartridges (5 per cent on \$30 per thousand), whereas if an old cartridge is reloaded the cost of the shell must be deducted; but appellant's counsel have not taken this into account.

Hence it is clear that in any event this court has not sufficient data before it to enable it to assess damages, even if it saw fit to reverse the judgment.

For the reasons stated in the previous portion of this brief, it is, however, submitted that not merely there should be no assessment of damages, but that the judgment of the court below should be affirmed.

CHARLES C. BINNEY,
Special Attorney,

L. A. PRADT,
Assistant Attorney-General,
for Appellee.

AD. 1865, Nov. 11, N° 2906
MILLAR'S SPECIFICATION

FIG. 1.

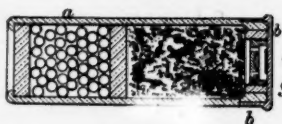


FIG. 2.



FIG. 3.

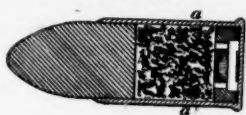


FIG. 5.



FIG. 6.



FIG. 7.

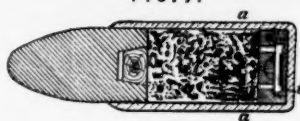


FIG. 7.



FIG. 10.

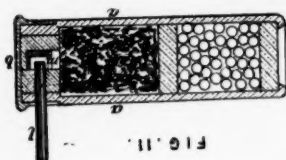
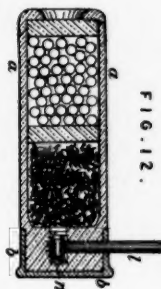
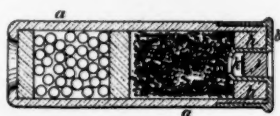


FIG. 8. FIG. 4. FIG. 9.



FIG. 6.



APPENDIX.

[This patent is a part of the record (see p. 24), and is printed here on account of appellant's failure to have it printed with the rest of the record.]

A. D. 1865, 11th NOVEMBER. No. 2906.

CARTRIDGES.

Letters patent to John Millar, of Bethnal Green, in the County of Middlesex, Physician, for the Invention of "Improvements in cartridges."

Sealed the 8th May 1866, and dated the 11th November 1865.

Specification in pursuance of the conditions of the Letters Patent, filed by the said John Millar, in the Great Seal Patent Office, on the 11th May 1866.

To all to whom these presents shall come, I, John Millar, of Bethnal Green, in the County of Middlesex, Physician, send greeting.

Whereas Her most Excellent Majesty Queen Victoria, by her Letters Patent, bearing date the Eleventh day of November, in the year of our Lord One thousand eight hundred and sixty-five, in the twenty-ninth year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said John Millar, Her special licence that I, the said John Millar, my executors, administrators, and assigns, or such others as I, the said John Millar, my executors, administrators, and assigns, should at any time agree with, and no others, from time

to time and at all times thereafter during the term therein expressed, should and lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man, an Invention for "Improvements in Cartridges," upon the condition (amongst others) that I, the said John Millar, my executors or administrators, by an instrument in writing under my, or their, or one of their hands and seals, should particularly describe and ascertain the nature of the said Invention, and in what manner the same was to be performed, and cause the same to be filed in the Great Seal Patent Office within six calendar months next and immediately after the date of the said Letters Patent.

Now know ye, that I, the said John Millar, do hereby declare the nature of my said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof, reference being had to the Drawings hereunto annexed, that is to say :

My Invention refers to those cartridges which contain their own ignition, and I make them as follows: I take a paper, metal, or compound cartridge case, and first insert a disc or wad, upon which I cause chlorate of potash and emery powder of charcoal to adhere; or I simply coat the inside of the base of the cartridge with the same materials. I next cut a disc or wad to the diameter of the inside of the base of the cartridge case, make notches or perforations in it, and a slight recess which I nearly fill with varnish or other suitable holding and protecting agent mixed with amorphous phosphorus alone, or combined with sulphuret of antimony or emery powder, or both. I insert the disc so prepared above the first mentioned, so that the compounds are opposite and face, but are not in contact with each other. I then charge the case in the usual manner. Upon a piston or plunger be-

ing driven against the centre of the back of the cartridge case the chlorate of potash and the amorphous phosphorus are driven in contact, and explosion takes place.

Figure 1 of the accompanying Drawings is a section of a cartridge constructed according to my Invention.

a is the cartridge case made of paper with a metal base *b*. The inside of the base *b* is supplied with chlorate of potash and emery powder at *c*, and caused to adhere thereto, or introduced upon a disc or wad. *d* is another disc or wad, shown detached in Figure 2; this disc is dished or recessed, and into the recess *e* I drop varnish or other like suitable holding agent mixed with amorphous phosphorus, either alone or combined with sulphuret of antimony or emery powder, or both. The disc *d* is formed with holes *f* or with notches, as in Figure 4; *g* is a compressed paper ring to fill up the annular space between the disc *d* and the case *a*. Upon a piston or plunger being driven against the centre of the base *b* the chlorate of potash *c* is driven into contact with the phosphorus in the recess *e*, and explosion takes place and ignites the powder through the holes *f* or notches in the disc *d*.

Figure 3 shews a cartridge in which the case *a* is of metal, and in which the disc *d* is of the same diameter as the inside of the case. In this cartridge also I sometimes form the disc *d* with notches *n*, as in Figure 4, instead of with the holes *f*.

Figures 5 and 6 shew a cartridge in which the disc *d* is flat, the chlorate of potash and amorphous phosphorus being kept apart by a paper ring *h*.

Figures 7, 8, and 9 represent a cartridge case, the case *a* of which is entirely of paper; the chlorate of potash instead of being applied directly to the inside of the base of the cartridge or on a flat disc is carried in a cupped disc *i*.

Figure 10 represents a cartridge in which the chlorate of potash is carried on the front of a plug *j* fitted into a tubular aperture in the rear of the cartridge. The tubular aperture is turned in at *k*, and an aperture is left in this part as shown. The amorphous phosphorus is applied to the rear of the part *k*.

Although I have described the chlorate of potash as being at the rear of the amorphous phosphorus, the position of these two materials may be reversed in any of the arrangements described.

Fig. 11 represents my Invention applied to a pin cartridge; here the chlorate of potash is carried on the inner end of the pin *l*, and the amorphous phosphorus in the inside of a cap *m*.

Figure 12 represents another pin cartridge, in which the pin does not carry either of the chemical substances, but in which one of them is carried inside a cap *m*, and the other inside another cap *n*, so that they face each other.

And having now described the nature of the said Invention, and in what manner the same is to be performed, I declare that I claim, forming cartridges substantially as herein-before described and represented in the accompanying Drawings, in which chlorate of potash and amorphous phosphorus are placed in such relative positions that they do not come in contact until a piston or plunger is driven against the cartridge case when they are forced together and explosion takes place.

In witness whereof, I, the said John Millar, have hereunto set my hand and seal, this Eleventh day of May, One thousand eight hundred and sixty-six.

JNO. MILLAR. [L. S.]